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BRIARCLIFF MANOR, NY 10510				
EXAMINER				
PIZALI, ANDREW T				
ART UNIT		PAPER NUMBER		
1798				
NOTIFICATION DATE		DELIVERY MODE		
07/26/2011		ELECTRONIC		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary

Application No.

10/560,707

Applicant(s)

MARMAROPOULOS ET AL.

Examiner

ANDREW PIZIALI

Art Unit

1798

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 July 2011.
2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9 and 21-31 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 1-9 and 21-31 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☒ The drawing(s) filed on 15 December 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-945)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____

DETAILED ACTION

Response to Amendment

1. The amendment filed on 7/6/2011 has been entered.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claims 1-9 and 21-31 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claims contain subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventors, at the time the application was filed, had possession of the claimed invention.

The specification is silent regarding an actuator converting a mechanical interaction with at least one area of a conductive elastomeric material. Rather, the conductive elastomeric material performs the conversion of a mechanical interaction (motion) into a signal via the properties of the conductive elastomeric material. The specification discloses that the actuator merely cooperates with the conductive elastomeric material to communicate the mechanical interaction between the two components (see entire document including page 2, lines 13-17, page 4, lines 2-9, page 6, lines 20-23, and page 7, lines 7-12).

4. Claims 1-9 and 21-31 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claims contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

The specification fails to teach how to make and/or use the claimed textile construction wherein an actuator converts a mechanical interaction with at least one area of a conductive elastomeric material. Rather, the specification discloses that the conductive elastomeric material performs a conversion via the properties of the conductive elastomeric material while the actuator is simply formed from a rigid plastic, rubber, or combination of plastic and rubber (paragraph bridging pages 6 and 7).

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claims 1-9 and 21-31 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 is amenable to two or more plausible claim constructions. The use of the phrase “an actuator for converting the mechanical interaction with the at least one area of the conductive elastomeric material” renders the claim indefinite because the claim fails to set forth the specific type of conversion and the specification provides no further guidance. It is not clear what the mechanical interaction is being converted into from said initial mechanical interaction. The phrase could be interpreted to mean: (a) mechanical to visible conversion, (b) mechanical to

audible conversion, (c) mechanical to scent conversion, or (d) mechanical to tactile conversion. Neither the specification, nor the claims, nor the ordinary meanings of the words provides any guidance as to what applicant intends to cover with this claim language. Due to the ambiguity as to what is intended by the claimed phrase and the fact that this claim element is amenable to two or more plausible claim constructions, this claim is rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter that the Applicant considers to be the invention. See *Ex parte Miyazaki* (BPAI Precedential 19 November 2008).

Claim 6, the phrase "rigid material" renders the claim indefinite. All plastic and rubber materials are flexible and rigid to a degree. It is not clear what rigidity is being claimed.

Claim Rejections - 35 USC § 102/103

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 1, 2, 5, 7-9 and 21-31 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over USPAP 2001/0017759 to Marmaropoulos.

Marmaropoulos discloses a textile construction including a user interface comprising a conductive elastomeric material (cords) including at least one area for converting a mechanical interaction therewith into at least one signal related to the at least area of the conductive elastomeric material; and an actuator (grip) for converting the mechanical interaction with the at least one area of the conductive elastomeric material (into visible movement), the actuator comprises markings describing functions of an electronic device that are initiated by the at least one electronic signal (see entire document including Figures 3 and 4, [0016], [0022], [0023] and [0024]).

In the event that it is shown that the applied prior art does not disclose the claimed embodiment with sufficient specificity, the invention is obvious because the prior art specifically discloses the claimed constituents.

Regarding claim 2, one or more characteristics (e.g., resistance) of the conductive elastomeric material changes in response to the interaction [0016].

Regarding claim 5, the conductive elastomeric material can have one or more of the claimed elements [0016].

Regarding claim 7, Marmaropoulos does not specifically disclose that the actuator (48) is formed from rubber, but Marmaropoulos does disclose that the actuator is an insulating grip for a jacket [0023]. The examiner took official notice (now admitted prior art) that rubber is a known material used for gripping products. It would have been obvious to one having ordinary skill in

the art at the time the invention was made to make the insulating grips from any suitable material, such as rubber, because it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability and desired characteristics.

Regarding claim 8, the actuator includes visual markings (Figures 3 and 4).

Regarding claim 9, one or more characteristics of said conductive elastomeric material changes in proportional response to said interaction, said interaction causing one or more areas of said conductive elastomeric material to be displaced ([0023] and [0024]).

Regarding claims 21, the actuator is cooperative with two or more conductive areas (Figures 3 and 4).

Regarding claim 22, one or more characteristics of said one or more conductive areas change in response to an interaction with said actuator ([0023] and [0024]).

Regarding claim 23, the degree of displacement is measured [0017].

Regarding claim 24, the interaction causes one or more areas of said conductive elastomeric material to be displaced without requiring a lateral displacement of said actuator (Figure 4).

Regarding claims 25-27, the user interface is operable for manipulation of three or more functions (Figure 4).

Regarding claims 28-31, the conductive elastomeric material is formed from conductive fibers having a conductive core [0016].

Claim Rejections - 35 USC § 103

10. Claims 3 and 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over USPAP 2001/0017759 to Marmaropoulos as applied to claims 1, 2, 5, 7-9 and 21-31 above, and further in view of USPN 6,360,615 to Smela.

Marmaropoulos does not appear to mention the specific stretchable and conductive cord material, therefore, it would have been obvious to look to the prior art for conventional materials. Smela provides this conventional teaching showing that it is known in the art to use piezoelectric materials, such as polypyrrole/polyester (see entire document including column 7, lines 32-67). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to make the cord material from a piezoelectric material, such as polypyrrole/polyester, motivated by the expectation of successfully practicing the invention of Marmaropoulos and because it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability and desired characteristics.

11. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over USPAP 2001/0017759 to Marmaropoulos as applied to claims 1, 2, 5, 7-9 and 21-31 above, and further in view of USPN 4,703,521 to Asher.

The actuator material is necessarily more rigid than the conductive elastomeric material to allow for mechanical use, but Marmaropoulos is silent with regards to specific actuator (grip) materials. Therefore, it would have been obvious to look to the prior art for conventional materials. Asher discloses that it is known in the outer garment art to connect elastic cords to a plastic material to hold (grip) the cord when it is elongated (see entire document including the

paragraph bridging columns 4 and 5). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to make the actuator from plastic, motivated by the expectation of successfully practicing the invention of Marmaropoulos and because it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability and desired characteristics.

Response to Arguments

12. Applicant's arguments filed 7/6/2011 have been fully considered but they are not persuasive.

The applicant asserts that Marmaropoulos fails to teach or suggest an actuator for converting a mechanical interaction with the at least one area of the conductive elastomeric material. The examiner respectfully disagrees. Firstly, the limitation is new matter. Secondly, the limitation is not enabled. Thirdly, the limitation is indefinite. Fourthly, Marmaropoulos discloses the claimed feature. Specifically, Marmaropoulos discloses an actuator (grip) for converting the mechanical interaction with the at least one area of the conductive elastomeric material (into visible movement) (see entire document including Figures 3 and 4, [0016], [0022], [0023] and [0024]).

The applicant asserts that the conductive elastomeric material (cord) of Marmaropoulos is not subjected to a mechanical interaction. The examiner respectfully disagrees. Marmaropoulos discloses that when the cord is stretched the volume either increases or decreases [0024]. Stretching is a mechanical interaction.

Conclusion

13. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to **ANDREW PIZIALI** whose telephone number is (571)272-1541. The examiner can normally be reached on Monday-Friday (8:00-4:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Angela Ortiz can be reached on (571) 272-1206. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 1798

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Andrew T Piziali/
Primary Examiner, Art Unit 1798